

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended): An electrophotographic photoreceptor, comprising:
an electroconductive substrate,
on the electroconductive substrate, an intermediate layer comprising titanium oxide,

and

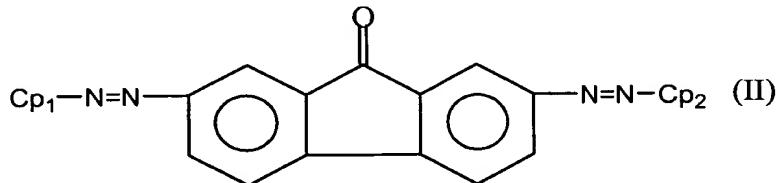
a photosensitive layer on the intermediate layer,

wherein the photosensitive layer comprises:

a charge generation layer, and

a charge transport layer,

wherein the charge generation layer comprises, as charge generation materials which have spectral sensitivity in differing wavelength regions, at least one phthalocyanine pigment and at least one asymmetric bisazo pigment having the following formula (II):

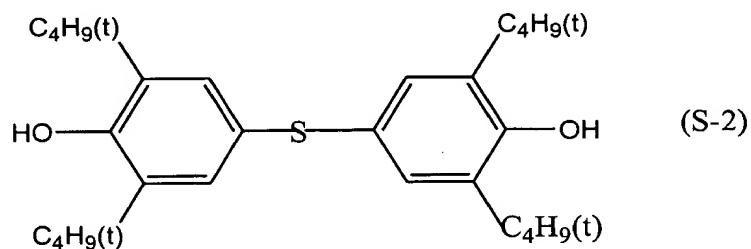
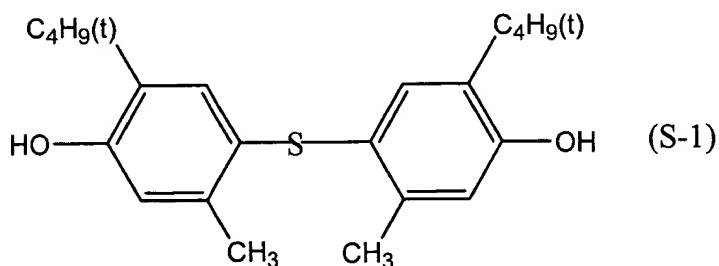
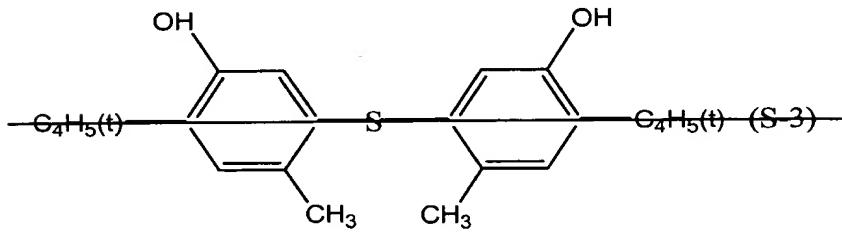
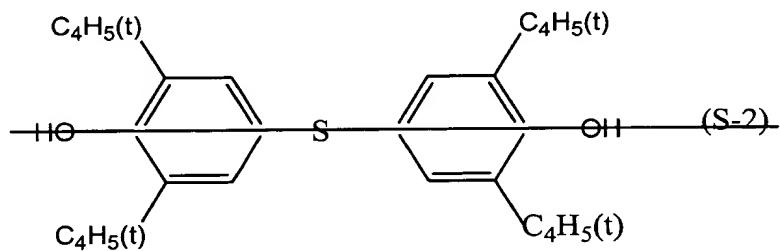
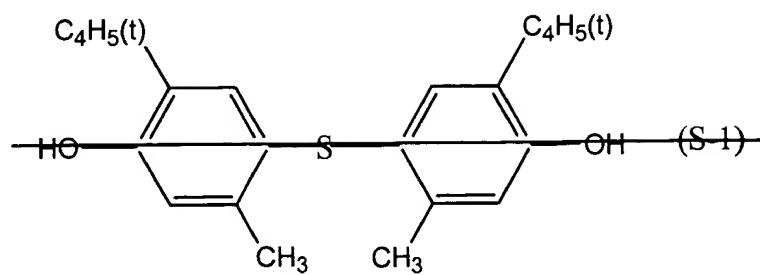


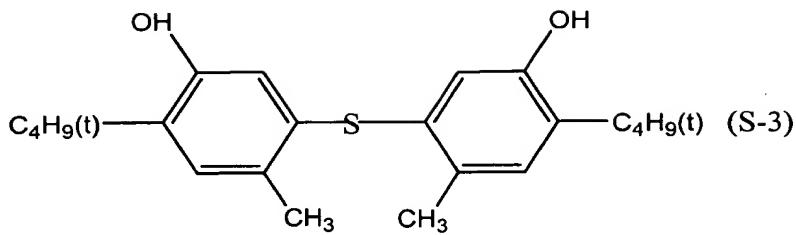
wherein Cp₁ and Cp₂ each, independently, represent a residual group of a coupler, wherein Cp₁ is different from Cp₂;

wherein the phthalocyanine pigment and the asymmetric bisazo pigment are present in the photosensitive layer in a ratio of 1:5 to 5:1 by weight;

and wherein the charge transport layer comprises an organic sulfur-containing compound selected from the group consisting of compounds having the following formulas III, S-1, S-2 and S-3:







wherein n is an integer of from 8 to 25.

Claims 2-4 (Canceled)

5. (Previously Presented): The electrophotographic photoreceptor according to Claim 1, wherein the phthalocyanine pigment comprises at least one of a τ -form metal-free phthalocyanine pigment or an X-form metal-free phthalocyanine pigment.

6. (Original): The electrophotographic photoreceptor according to Claim 5, wherein the phthalocyanine pigment comprises a τ -form metal-free phthalocyanine pigment having an X-ray diffraction spectrum in which main peaks are observed at Bragg 2θ angle of 7.6°, 9.2°, 16.8°, 17.4°, 20.4°, 20.9°, 21.7° and 27.6° when a specific X-ray of Cu-K α having a wavelength of 1.541 Å irradiates the pigment.

7. (Original) The electrophotographic photoreceptor according to Claim 5, wherein the phthalocyanine pigment comprises an X-form metal-free phthalocyanine pigment having an X-ray diffraction spectrum in which main peaks are observed at Bragg 2θ angle of 7.5°, 9.1°, 16.7°, 17.3°, 22.3° and 28.8° when a specific X-ray of Cu-K α having a wavelength of 1.541 Å irradiates the pigment.

Claims 8-9 (Canceled)

10. (Currently Amended): An electrophotographic image forming apparatus comprising:

an electrophotographic photoreceptor;

a charging device which charges the photoreceptor;

a light irradiation device which irradiates the charged photoreceptor to form an electrostatic latent image on the photoreceptor;

a developing device which reversely develops the electrostatic latent image with a developer including a toner, to form a toner image on the photoreceptor;

an image transfer device which transfers the toner image to a receiving material; and

a cleaning device which cleans the photoreceptor,

wherein the electrophotographic photoreceptor comprises:

an electroconductive substrate,

on the electroconductive substrate, an intermediate layer comprising titanium oxide, and

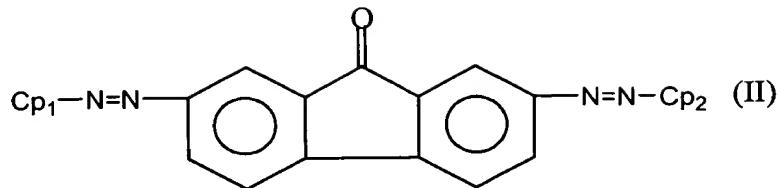
a photosensitive layer on the intermediate layer,

and wherein the photosensitive layer comprises:

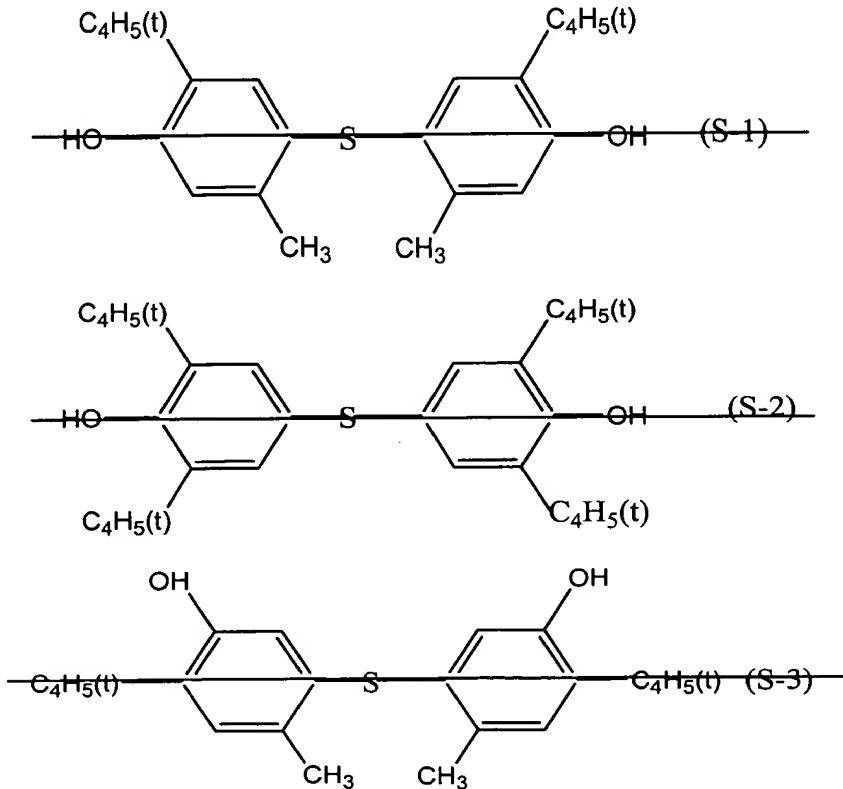
a charge generation layer, and

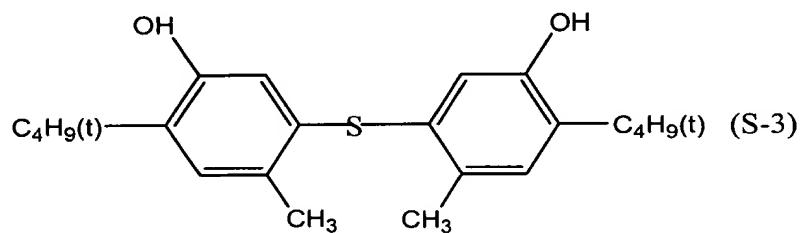
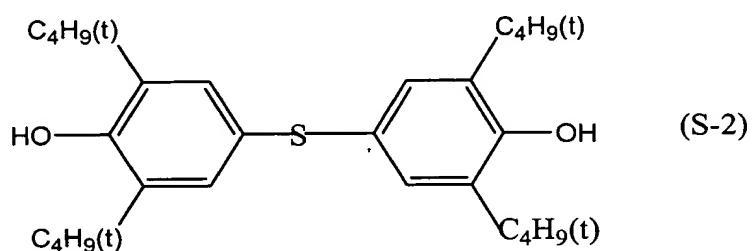
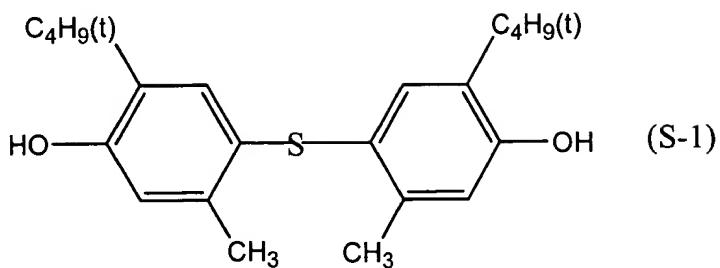
a charge transport layer,

wherein the charge generation layer comprises, as charge generation materials which have spectral sensitivity in differing wavelength regions, at least one phthalocyanine pigment and at least one asymmetric bisazo pigment having the following formula (II):



wherein Cp₁ and Cp₂ each, independently, represent a residual group of a coupler,
wherein Cp₁ is different from Cp₂;
wherein the phthalocyanine pigment and the asymmetric bisazo pigment are present
in the photosensitive layer in a ratio of 1:5 to 5:1 by weight;
and wherein the charge transport layer comprises an organic sulfur-containing
compound selected from the group consisting of compounds having the following formulas
III, S-1, S-2 and S-3:





wherein n is an integer of from 8 to 25.

11. (Original): The electrophotographic image forming apparatus according to Claim 10 , wherein the charging device charges the photoreceptor while contacting the photoreceptor.

Claim 12-14 (Canceled)

15. (Previously Presented): The electrophotographic image forming apparatus according to Claim 10, wherein the phthalocyanine pigment comprises at least one of a τ -form metal-free phthalocyanine pigment or an X-form metal-free phthalocyanine pigment.

16. (Original): The electrophotographic image forming apparatus according to Claim 15, wherein the phthalocyanine pigment comprises a τ -form metal-free phthalocyanine pigment having an X-ray diffraction spectrum in which main peaks are observed at Bragg 2θ angle of 7.6° , 9.2° , 16.8° , 17.4° , 20.4° , 20.9° , 21.7° and 27.6° when a specific X-ray of Cu-K α having a wavelength of 1.541 Å irradiates the pigment.

17. (Original): The electrophotographic image forming apparatus according to Claim 15, wherein the phthalocyanine pigment comprises an X-form metal-free phthalocyanine pigment having an X-ray diffraction spectrum in which main peaks are observed at Bragg 2θ angle of 7.5° , 9.1° , 16.7° , 17.3° , 22.3° and 28.8° when a specific X-ray of Cu-K α having a wavelength of 1.541 Å irradiates the pigment.

Claims 18-19 (Canceled)

20. (Currently Amended): An electrophotographic process cartridge comprising:
a photoreceptor; and
at least one device selected from the group consisting of:
a charging device which charges the photoreceptor;
a light irradiation device which irradiates the charged photoreceptor to form an electrostatic latent image on the photoreceptor;

a developing device which reversely develops the electrostatic latent image with a developer including a toner to form a toner image on the photoreceptor; an image transfer device which transfers the toner image to a receiving material; and a cleaning device which cleans the photoreceptor,

wherein the photoreceptor comprises:

an electroconductive substrate,

on the electroconductive substrate, an intermediate layer comprising titanium oxide, and

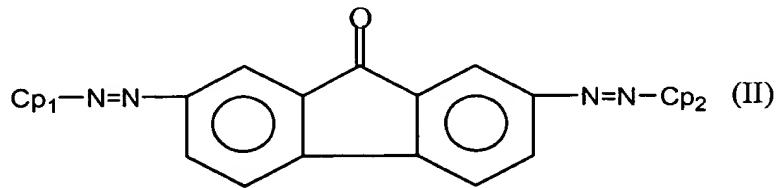
a photosensitive layer on the intermediate layer,

and wherein the photosensitive layer comprises:

a charge generation layer, and

a charge transport layer,

wherein the charge generation layer comprises, as charge generation materials which have spectral sensitivity in differing wavelength regions, at least one phthalocyanine pigment and at least one asymmetric bisazo pigment having the following formula (II):

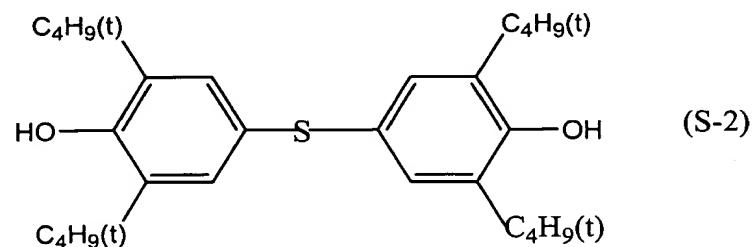
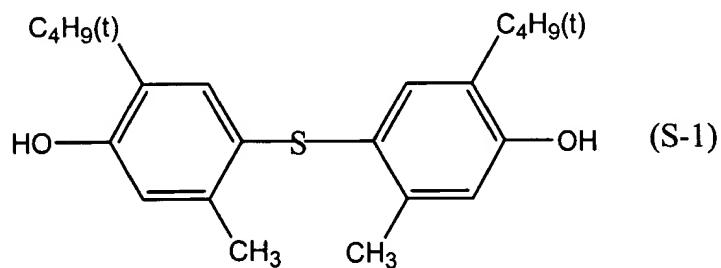
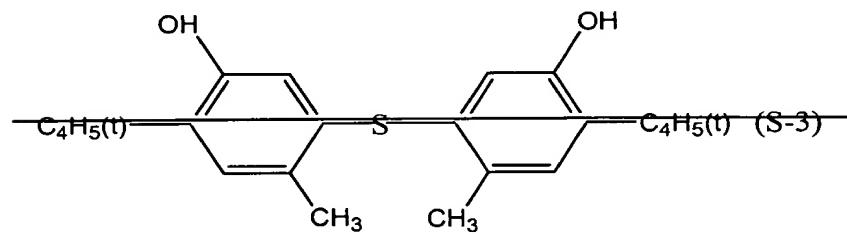
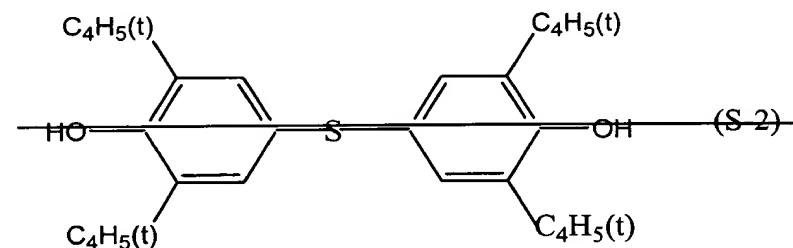
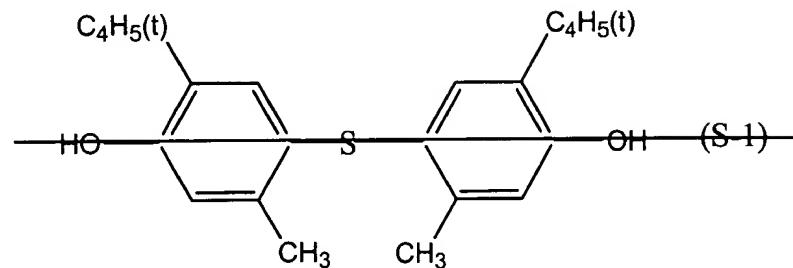


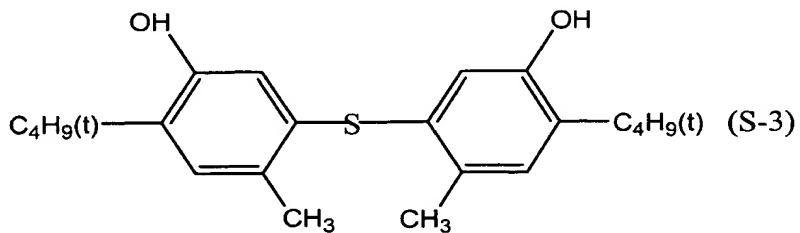
wherein Cp₁ and Cp₂ each, independently, represent a residual group of a coupler, wherein Cp₁ is different from Cp₂;

wherein the phthalocyanine pigment and the asymmetric bisazo pigment are present in the photosensitive layer in a ratio of 1:5 to 5:1 by weight;

and wherein the charge transport layer comprises an organic sulfur-containing compound selected from the group consisting of compounds having the following formulas III, S-1, S-2 and S-3:

S-(CH₂CH₂COOC_nH_{2n+1})₂ (III)





wherein n is an integer of from 8 to 25.

Claims 21-23 (Canceled)

24. (Previously Presented): The electrophotographic process cartridge according to Claim 20, wherein the phthalocyanine pigment comprises at least one of a τ -form metal-free phthalocyanine pigment or an X-form metal-free phthalocyanine pigment.

25. (Original): The electrophotographic process cartridge according to Claim 24, wherein the phthalocyanine pigment comprises a τ -form metal-free phthalocyanine pigment having an X-ray diffraction spectrum in which main peaks are observed at Bragg 2θ angle of 7.6°, 9.2°, 16.8°, 17.4°, 20.4°, 20.9°, 21.7° and 27.6° when a specific X-ray of Cu-K α having a wavelength of 1.541 Å irradiates the pigment.

26. (Original): The electrophotographic process cartridge according to Claim 24, wherein the phthalocyanine pigment comprises an X-form metal-free phthalocyanine pigment having an X-ray diffraction spectrum in which main peaks are observed at Bragg 2θ angle of 7.5°, 9.1°, 16.7°, 17.3°, 22.3° and 28.8° when a specific X-ray of Cu-K α having a wavelength of 1.541 Å irradiates the pigment.

Claims 27-28 (Canceled)

29. (Currently Amended) An electrophotographic image forming method comprising the steps of:

providing an electrophotographic photoreceptor;

charging the electrophotographic photoreceptor;

irradiating the electrophotographic photoreceptor with light to form an electrostatic latent image on the electrophotographic photoreceptor;

reversely developing the electrostatic latent image with a developer including a toner to form a toner image on the electrophotographic photoreceptor;

transferring the toner image to a receiving material; and

cleaning the electrophotographic photoreceptor,

wherein the electrophotographic photoreceptor comprises:

an electroconductive substrate,

on the electroconductive substrate, an intermediate layer comprising titanium oxide, and

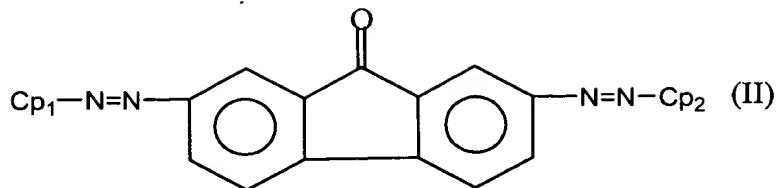
a photosensitive layer on the intermediate layer,

and wherein the photosensitive layer comprises:

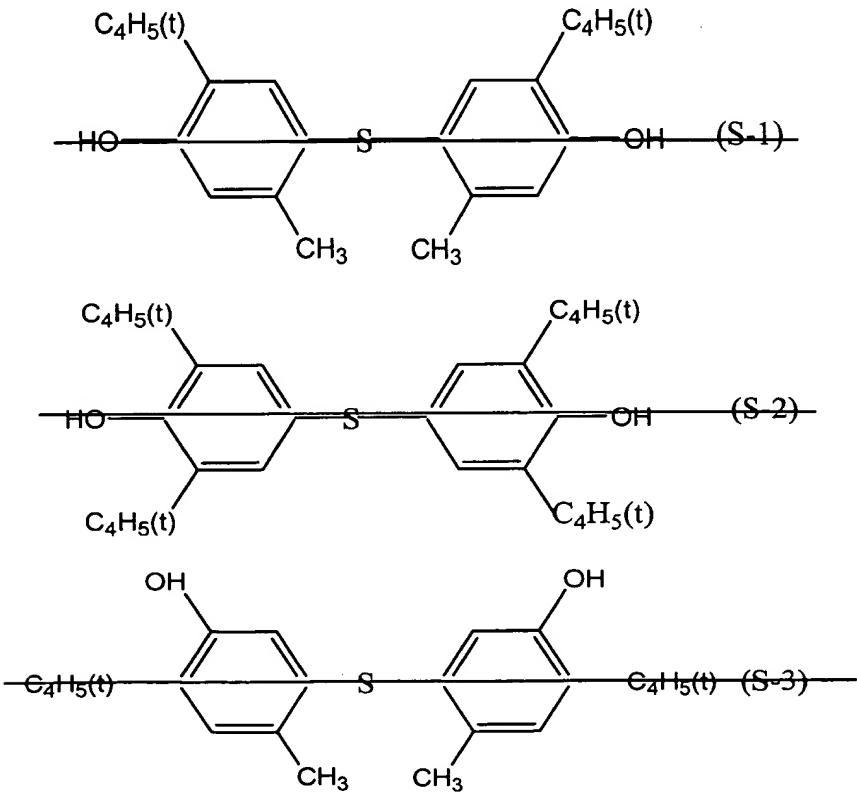
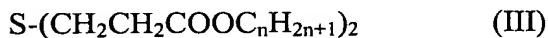
a charge generation layer, and

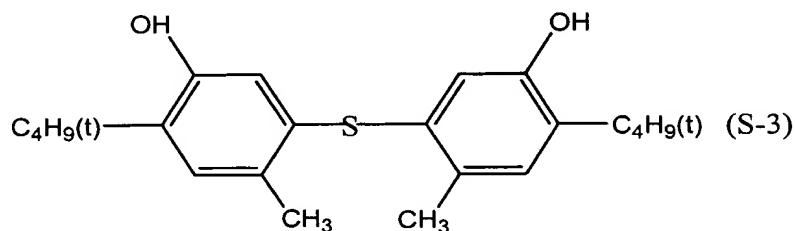
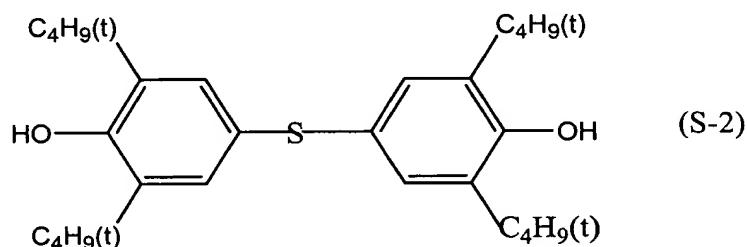
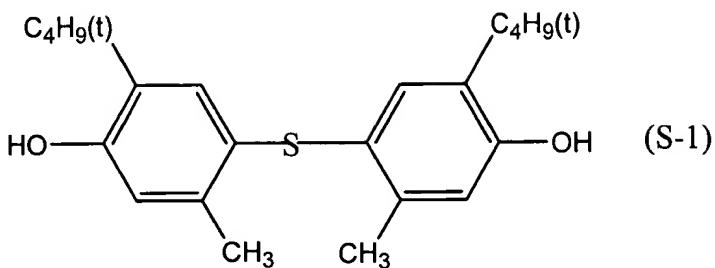
a charge transport layer,

wherein the charge generation layer comprises, as charge generation materials which have spectral sensitivity in differing wavelength regions, at least one phthalocyanine pigment and at least one asymmetric bisazo pigment having the following formula (II):



wherein Cp₁ and Cp₂ each, independently, represent a residual group of a coupler,
wherein Cp₁ is different from Cp₂;
wherein the phthalocyanine pigment and the asymmetric bisazo pigment are present
in the photosensitive layer in a ratio of 1:5 to 5:1 by weight;
and wherein the charge transport layer comprises an organic sulfur-containing
compound selected from the group consisting of compounds having the following formulas
III, S-1, S-2 and S-3:





wherein n is an integer of from 8 to 25.

Claims 30-32 (Canceled)

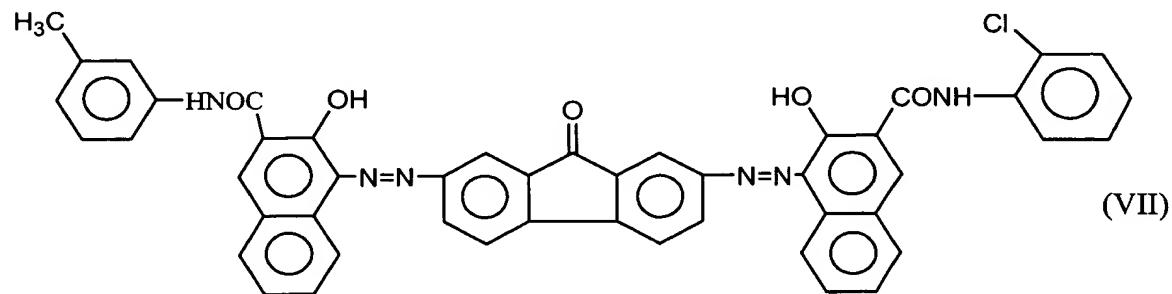
33. (Previously Presented): The electrophotographic image forming method according to Claim 29, wherein the phthalocyanine pigment comprises at least one of a τ -form metal-free phthalocyanine pigment or an X-form metal-free phthalocyanine pigment.

34. (Original): The electrophotographic image forming method according to Claim 33, wherein the phthalocyanine pigment comprises a τ -form metal-free phthalocyanine pigment having an X-ray diffraction spectrum in which main peaks are observed at Bragg 2θ angle of 7.6° , 9.2° , 16.8° , 17.4° , 20.4° , 20.9° , 21.7° and 27.6° when a specific X-ray of Cu-K α having a wavelength of 1.541 \AA irradiates the pigment.

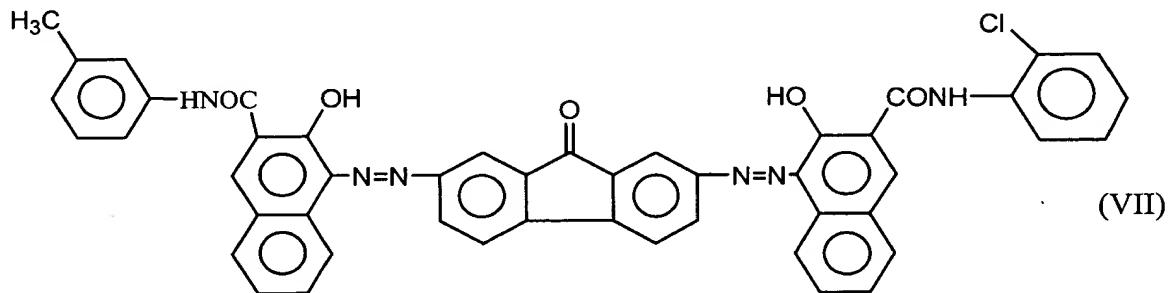
35. (Original): The electrophotographic image forming method according to Claim 33, wherein the phthalocyanine pigment comprises an τ -form metal-free phthalocyanine pigment having an X-ray diffraction spectrum in which main peaks are observed at Bragg 2θ angle of 7.5° , 9.1° , 16.7° , 17.3° , 22.3° and 28.8° when a specific X-ray of Cu-K α having a wavelength of 1.541 \AA irradiates the pigment.

Claims 36-37 (Canceled)

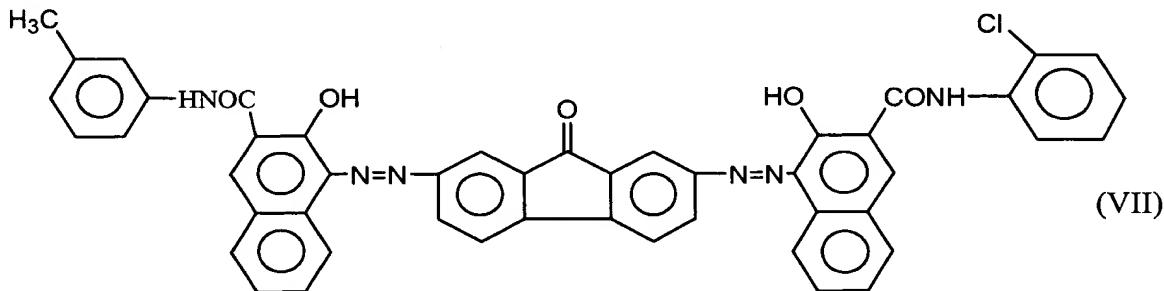
38. (Previously Presented): The electrophotographic photoreceptor according to Claim 1, wherein the asymmetric bisazo pigment having the formula (II) is a compound having the formula (VII):



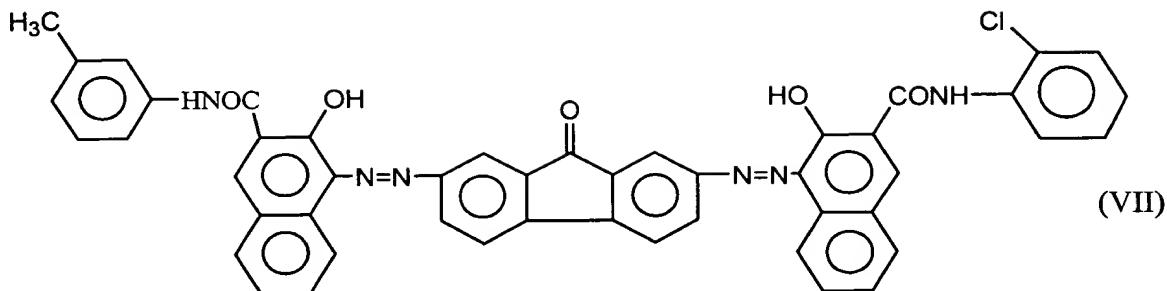
39. (Previously Presented): The electrophotographic photoreceptor according to Claim 1, wherein the asymmetric bisazo pigment having the formula (II) is a compound having the formula (VIII):



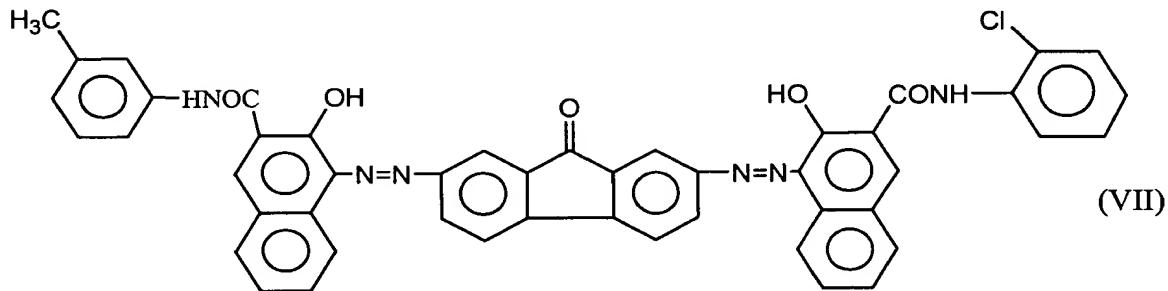
40. (Previously Presented): The electrophotographic image forming apparatus according to Claim 10, wherein the asymmetric bisazo pigment having the formula (II) is a compound having the formula (VII):



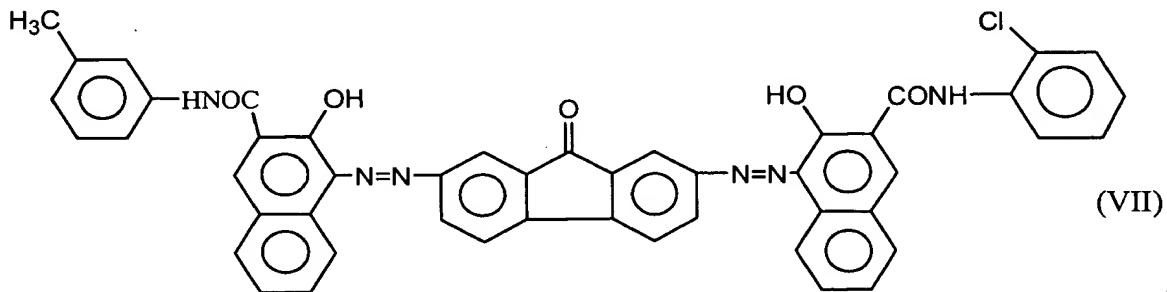
41. (Previously Presented): The electrophotographic image forming apparatus according to Claim 10, wherein the asymmetric bisazo pigment having the formula (II) is a compound having the formula (VIII):



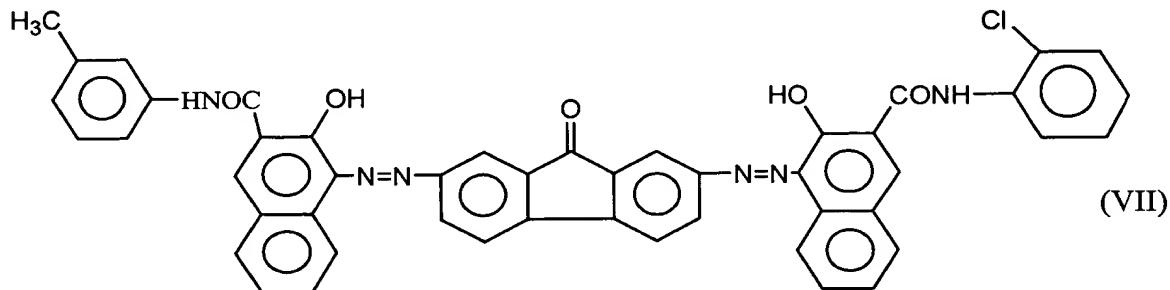
42. (Previously Presented): The electrophotographic process cartridge according to Claim 20, wherein the asymmetric bisazo pigment having the formula (II) is a compound having the formula (VII):



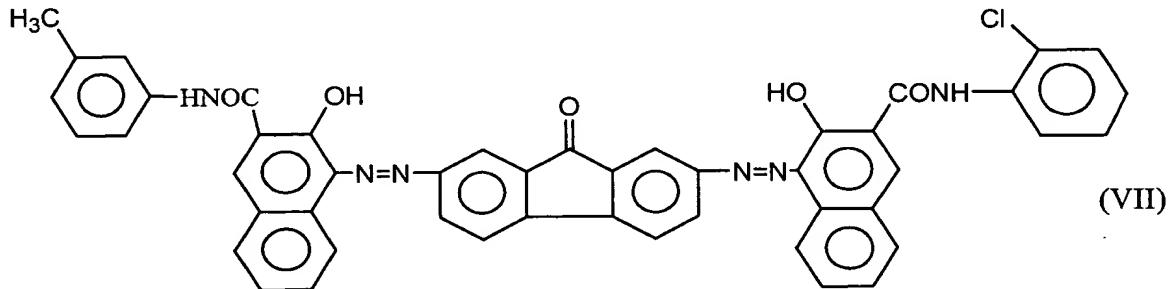
43. (Previously Presented): The electrophotographic process cartridge according to Claim 20, wherein the asymmetric bisazo pigment having the formula (II) is a compound having the formula (VIII):



44. (Previously Presented): The electrophotographic image forming method comprising according to Claim 29, wherein the asymmetric bisazo pigment having the formula (II) is a compound having the formula (VII):



45. (Previously Presented): The electrophotographic image forming method comprising according to Claim 29, wherein the asymmetric bisazo pigment having the formula (II) is a compound having the formula (VIII):



46. (New) The electrophotographic photoreceptor according to Claim 1, having a drum diameter of 30 mm.

47. (New) The electrophotographic photoreceptor according to Claim 1, wherein said intermediate layer has a dry thickness of 3μm.

BASIS FOR THE AMENDMENT

The specification has been amended at page 10, Table 2 and Claims 1, 10, 20 and 29 have been amended to correct minor typographical errors in structures S-1, S-2 and S-3. Tert. butyl has the formula C₄H₉.

New Claims 46 and 47 have been added as supported at page 36, lines 19-23 of the specification.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1, 5-7, 10, 11, 15-17, 20, 24-26, 29, 33-35, and 38-47 will now be active in this application.